

LISTING OF CLAIMS:

Claim 1 (previously presented) A communications system for transmitting voice data packets from a source system including a base station to a destination system over an IP packet-switched data network using a specified communications protocol, said system comprising:

a source interface device adapted to receive voice data packets, of a specified format, from the base station of the source system and to reformat voice data packets to a format compatible with the specified communications protocol; and

a source gateway adapted to receive the reformatted voice data packets from the source interface device and to route the reformatted voice data packets over the IP packet-switched network to a destination gateway;

wherein the destination gateway is adapted to route the reformatted voice data packet to a destination interface device adapted to reformat the reformatted voice data packets to the specified format and to output the re-reformatted voice data packets to the destination system.

Claim 2 (original) The system of claim 1 wherein the IP packet-switched data network comprises any one of the public Internet and private data networks using any one of Frame Relay, ATM, Ethernet, Gigabit Ethernet and DSL as a transport technology and the specified communication protocol is TCP/IP.

Claim 3 (original) The system of claim 1 wherein the specified format comprises any one of GSM, CDMA, TDMA, FDMA, AMPS and D-AMPS.

Claim 4 (previously presented) The system of claim 1 wherein the source system further comprises:

a wireless source telephone adapted to convert voice signals to voice data packets in the specified format, the data packets including data indicating a call type, wherein the wireless source telephone is further adapted to transmit the data packets to the base station; and

a mobile telephone switching office including a source switching device adapted to receive the voice data packets from the base station, to recognize the call type, and to forward the voice data packets to the destination interface device only for a specified call type.

Claim 5 (original) The system of claim 4 wherein the call types comprise local calls and long distance calls and the specified call type is a long distance call.

Claim 6 (previously presented) The system of claim 4 wherein the source system further comprises a source transceiver/base station for transmitting the voice data packets from the wireless source telephone to the source switching device.

Claim 7 (original) The system of claim 1 wherein the destination system comprises:

a wireless destination telephone;

a destination switching device adapted to receive the re-reformatted voice data packets from the destination interface device; and

a destination transceiver/base station adapted to receive the re-reformatted voice data packets from the destination switching device and to transmit the re-reformatted voice data packets to the wireless destination telephone.

Claim 8 (previously presented) A method of transmitting voice data packets from a source system to a destination system over an IP packet-switched data network using a specified communications protocol, said method comprising:

routing voice data packets to a source interface;

reformatting voice data packets, of a specified format, received from the source system to a format compatible with the specified communications protocol;

routing the reformatted voice data packets through a source gateway over the IP packet-switched network, through a destination gateway and to a destination interface;

reformatting the reformatted voice data packets to the specified format and

routing the re-reformatted voice data packets to the destination system.

Claim 9 (previously presented) A communications system for transmitting voice data from a source system to a destination system over an IP packet-switched network having a specified communications protocol, said system comprising:

the source system includes a mobile telephone switching office that is adapted to receive local calls and long distance calls and the long distance calls are routed to a source interface device;

the source interface device is adapted to further route the long distance calls to a source gateway;

the source gateway is adapted to receive the voice data from the source system, to convert the voice data into voice data packets compatible with the specified communications protocol and to route the voice data packets over the IP packet-switched network; and

a destination gateway adapted to receive the voice data packets from the source gateway over the IP packet-switched network, to convert the voice data packets into voice data and to route the voice data to the destination system.

Claim 10 (original) The system of claim 9 wherein the source system comprises:

a source circuit-switched data network;

a wireless source telephone adapted to convert voice signals to voice data packets, of a specified format, the voice data packets including data indicating a call type; and

a source switching device adapted to receive the voice data packets from the wireless source telephone, to convert the voice data packets to a circuit-switched format compatible with the circuit-switched data network;

wherein the circuit-switched data network is adapted to recognize the call type and to route the voice data to the source gateway only for a specified call type.

Claim 11 (cancelled)

Claim 12 (original) The system of claim 10 wherein the source system further comprises a source transceiver/base station for transmitting the voice data packets from the wireless source telephone to the source switching device.

Claim 13 (original) The system of claim 1 wherein the destination system comprises:

a wireless destination telephone; and

a destination circuit-switched data network adapted to receive the voice data from the destination gateway and to route the voice data to a destination switching device;

wherein the destination switching device is adapted to reformat the voice data into the specified voice data packet format.

Claim 14 (previously presented) The system of claim 13 wherein the destination system further comprises a destination transceiver/base station adapted to receive the reformatted voice data packets from the destination switching device and to transmit the reformatted voice data packets to the wireless destination telephone.

Claim 15 (previously presented) A routing system for routing voice data between a first mobile telephone and a second mobile telephone:

a first wireless personal communication device configured to transmit and receive voice data in at least local and long distance modes;

a second wireless personal communication device configured to transmit and receive voice data in at least local and long distance modes;

a first switching office configured to transmit and receive voice data from the first wireless personal communication device, and further configured to transmit and receive local voice data from a first local central office and to transmit and receive long distance voice data to a first interface device;

a second switching office configured to transmit and receive voice data from the second wireless personal communication device and further configured to transmit and receive local voice data from a second local central office and to transmit and receive long distance voice data to a second interface device;

the first and second local central offices are configured to transmit and receive local voice data between themselves;

the first interface device is configured to transmit and receive long distance voice data from a first gateway device;

the second interface device is configured to transmit and receive long distance voice data from a second gateway device; and

the first and second gateway devices are configured to transmit and receive long distance voice data between themselves across an internet protocol data network.

Claim 16 (previously presented) The routing system of claim 15, wherein:

the first and second interface devices are configured to reformat voice data from formats compatible with wireless personal communication devices to a format compatible with internet protocol, and to reformat voice data from a format compatible with internet protocol to formats compatible with wireless personal communication devices.

Claim 17 (previously presented) The routing system of claim 15, wherein:
the first and second gateway devices are configured to convert voice data into voice data packets for transmittal over an internet protocol voice data network and to reconvert voice data packets into voice data.

Claim 18 (previously presented) A routing system for routing voice data between a first mobile telephone and a second mobile telephone:

a first wireless personal communication device configured to transmit and receive voice data in at least local and long distance modes;

a second wireless personal communication device configured to transmit and receive voice data in at least local and receive voice data in at least local and long distance modes;

a first switching office configured to transmit and receive voice data from the first wireless personal communication device, and further configured to transmit and receive voice data from a first local central office;

a second switching office configured to transmit and receive voice data from the second wireless personal communication device, and further configured to transmit and receive voice data from a second local central office;

the first local central office is configured to receive and transmit long distance voice data from a first gateway device;

the second local central office is configured to receive and transmit long distance voice data from a second gateway device;

the first and second local central offices are further configured to transmit and receive local voice data between themselves across a public switched telephone network; and

the first and second gateway devices are configured to transmit and receive long distance voice data between themselves across an internet protocol data network.

Claim 19 (previously presented) The routing system of claim 18, wherein:

the first and second switching offices convert voice data from a format compatible with the first and second wireless personal communication device to a 64 kilobit circuit-switched format for transmittal to the first and second local central offices.

Claim 20 (previously presented) The routing system of claim 19, wherein:

the first and second gateway devices convert the voice data from a 64 kilobit circuit-switched format to a TCP/IP format.